

REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed April 2, 2007. The Examiner is thanked for the thorough examination of the present application. Upon entry of this response, claims 1-11 are pending in the present application. Claims 24-34 are newly added. Applicants believe that no new matter has been added and that a new search is not required to examine the newly added claims.

Claims 1-11 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by *Kim et al.* ("Low Complexity Rate-Distortion Optimal Macroblock Mode Selection and Motion Estimation for MPEG-Like Video Coders," hereinafter "*Kim*"). Claim 1-3 and 8-11 are also rejected under 35 U.S.C. §102(b) as allegedly being anticipated by *Sethuraman* (U.S. Pat. No. 6,037,987). Finally, claims 3 and 8-10 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Sethuraman* in view of *Kim*. Applicants respectfully request consideration of the following remarks contained herein. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

I. Response to Claim Rejections Under 35 U.S.C. § 102

Claims 1-11 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by *Kim*. Claim 1-3 and 8-11 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by *Sethuraman*. For at least the reasons set forth below, Applicants traverse these rejections.

The Kim Reference

The Office Action rejects claims 1-11 under 35 U.S.C. §102(b) as allegedly being anticipated by *Kim*. (See Office Action, p. 2.) As noted by the Office Action, the article, "Low Complexity Rate-Distortion Optimal Macroblock Mode Selection and Motion Estimation for MPEG-Like Video Coders" was disclosed in the IDS submitted by Applicants. However, the article was not accompanied by a date of publication as the article disclosed in the IDS was not publicly disclosed. A later version of the article was published in July of 2003 at an IEEE International Conference Multimedia and Expo conference. Applicants submit a supplemental IDS, which provides information regarding the first published version of the article (including the date of publication), in compliance with 37 C.F.R. §1.98(b)(5). As indicated in form 1449, submitted herewith, the article was first published in July of 2003. Applicants respectfully submit that the present application has perfected a claim of priority to Provisional Application No. 60/426,163, filed on November 14, 2002. As such, the article does not constitute prior art under §102(b), as alleged in the Office Action. Accordingly, Applicants respectfully request that the §102 rejection of claims 1-11 be withdrawn.

Independent Claim 1 is Patentable Over Sethuraman

Claim 1 recites (emphasis added):

1. A video system comprising:

a video processing circuit that receives a picture and provides video compression by using an optimal macroblock mode of operation, the optimal macroblock mode of operation being identified by processing at least one macroblock of the picture, **the processing being performed independent of other macroblocks contained in the picture.**

Claim 1-3 and 8-11 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by *Sethuraman*. Applicants respectfully traverse this rejection. It is axiomatic that "[a]nticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." *W. L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983). Therefore, every claimed feature of the claimed invention must be represented in the applied reference to constitute a proper rejection under 35 U.S.C. § 102(b).

In the present case, not every feature of the claimed invention is represented in the *Sethuraman* reference. Applicants respectfully submit that independent claim 1 is allowable for at least the reason that *Sethuraman* does not disclose, teach, or suggest at least the limitation "the processing being performed independent of other macroblocks contained in the picture," as emphasized in claim 1 above. On page 4, the Office Action alleges that the *Sethuraman* reference teaches this limitation and refers to FIG. 2, step 205.

Referring to FIG. 2 of the *Sethuraman* reference, step 205 recites "SELECT A MICRO BLOCK." Applicants also refer to the related text for FIG. 2:

FIG. 2 illustrates a method 200 for implementing complexity reduction. Namely, by using a plurality of thresholds, **the present invention can quickly eliminate certain coding modes from consideration, thereby**

reducing the computational overhead necessary to select a particular coding mode. Method 200 is an initial method to simplify the mode decision process, by quickly comparing the measure of distortion after motion compensation with the measure of intra coding distortion.

More specifically, method 200 selects a macroblock i from a frame in step 205, where the frame can be a predictive residual. At this stage, motion compensation has been performed and method 200 is able to obtain a measure of distortion for a particular macroblock i for all available coding modes k. The measure of distortion can be mean-square-error (MSE), the variance, or the sum of absolute difference computed over the pixels in the macroblock, but the present invention is not limited to a particular method of calculating the distortion measure or metric. It should be noted that although the present invention is described below with reference to a macroblock, the present invention can be applied to other "block" format in accordance with other coding standards.

(*Sethuraman*; Col. 5, line 49 – Col. 6, line 4). Applicants submit that while *Sethuraman* teaches of simplifying the mode decision process and selecting a macroblock from a frame (step 205), *Sethuraman* does not appear to disclose the limitation “the processing being performed independent of other macroblocks contained in the picture,” as emphasized in claim 1 above. Applicants respectfully request that the Examiner point out with particularity how and where *Sethuraman* teaches this feature. Applicants respectfully refer to the MPEP, which states: “Where a claim is rejected for any reason relating to the merits thereof if should be ‘rejected’ and the ground of rejection fully and clearly stated.” MPEP § 707.07(d).

Accordingly, Applicants respectfully submit that independent claim 1 patently defines over *Sethuraman* for at least the reason that *Sethuraman* fails to disclose, teach or suggest the features emphasized in claim 1 above.

Dependent Claims 2-11

Applicants submit that dependent claims 2-11 are allowable for at least the reason that these claims depend from an allowable independent claim. See, e.g., *In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988).

Independent Claim 24 is Patentable Over Sethuraman

Newly added claim 24 recites (emphasis added):

24. A video system comprising:

means for receiving a picture and providing video compression by using an optimal macroblock mode of operation, the optimal macroblock mode of operation being identified by processing at least one macroblock of the picture, **the processing being performed independent of other macroblocks contained in the picture.**

Applicants respectfully submit that claim 24 is patentable over the *Sethuraman* reference for at least the reason that *Sethuraman* fails to disclose, teach, or suggest the limitation, “the processing being performed independent of other macroblocks contained in the picture.” As discussed above for claim 1, Applicants submit that while *Sethuraman* teaches of simplifying the mode decision process and selecting a macroblock from a frame (step 205), *Sethuraman* does not appear to disclose the limitation “the processing being performed independent of other macroblocks contained in the picture,” as emphasized in claim 24 above. Applicants respectfully request that the Examiner point out with particularity how and where *Sethuraman* teaches this feature.

Accordingly, Applicants respectfully submit that independent claim 24 patently defines over *Sethuraman* for at least the reason that *Sethuraman* fails to disclose, teach or suggest the features emphasized in claim 24 above.

Dependent Claims 25-34

Applicants submit that dependent claims 25-34 are allowable for at least the reason that these claims depend from an allowable independent claim. See, e.g., *In re Fine*, 837 F. 2d 1071 (Fed. Cir. 1988).

II. Prior Art Made of Record

The prior art made of record has been considered, but is not believed to affect the patentability of the presently pending claims.

CONCLUSION

Applicants respectfully submit that all pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephone conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

No fee is believed to be due in connection with this amendment and response to Office Action. If, however, any fee is believed to be due, you are hereby authorized to charge any such fee to deposit account No. 20-0778.

Respectfully submitted,



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